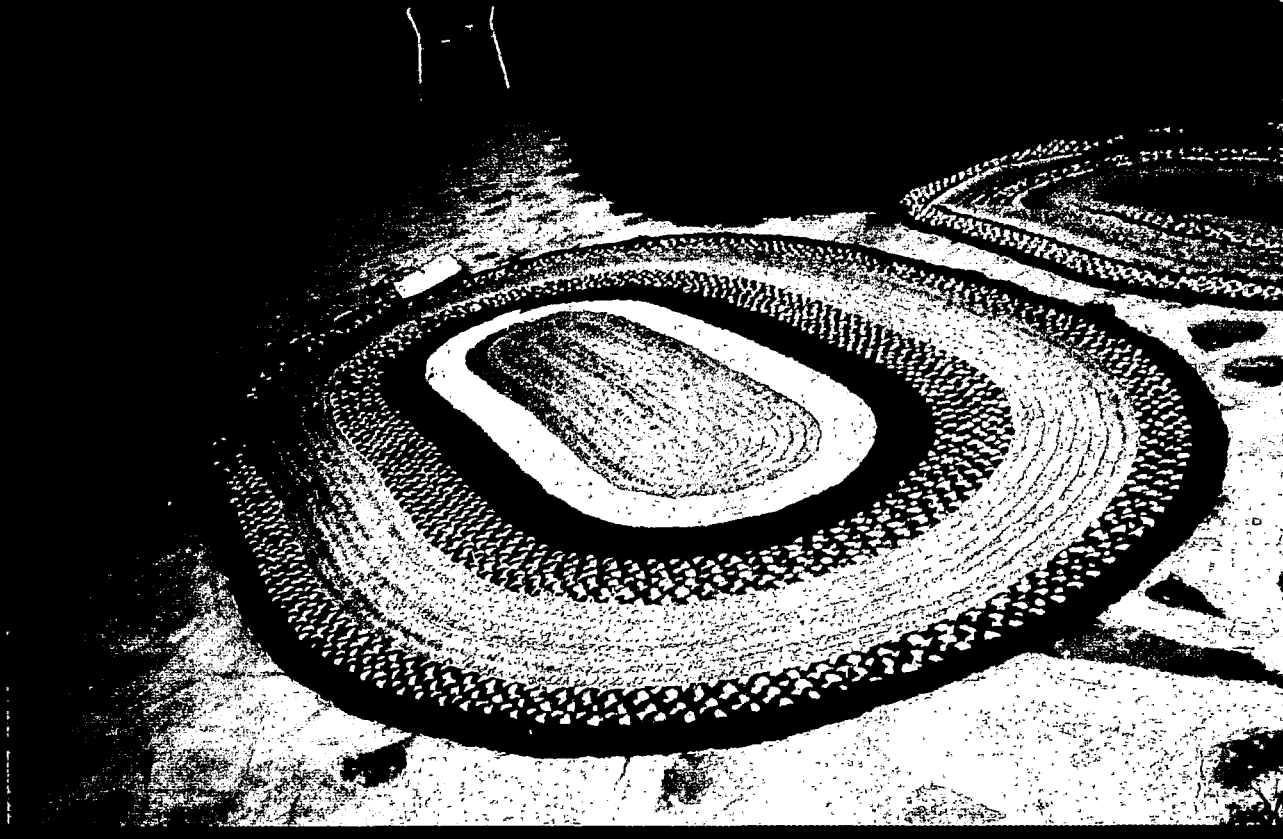
MARKETING OF RESOURCE PRODUCTS: HOW MARKETS WORK

Michelle Veeman



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Preface

The Agroforestry: Southern Africa (AFSA) project is aimed at capacity building in agroforestry training and research. It is a joint project of the Universities of Alberta (UA) and Zimbabwe (UZ), funded by the Canadian International Development Agency (CIDA) of Canada. AFSA is a University Partnership in Co-operation and Development Project (UPCD) managed by the Association of Universities and Colleges of Canada (AUCC). The lead institution at UA is the Department of Rural Economy while at UZ it is the Institute of Environmental Studies. A wide range of other departments are represented on the management committees, reflecting the interdisciplinary nature of the project, including the Department of Agricultural Economics (UZ), the Department of Soil Science (UZ), the Department of Public Law (UZ), the Centre for Applied Social Sciences (UZ), the Department of Renewable Resources (UA), and the Forestry Commission (Government of Zimbabwe). The aims of the project include:

- developing curricula materials
- improving the agroforestry knowledge base
- training graduate students
- developing library resources in agroforestry

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Introduction

This primer focuses on the operations and functions of markets for resource and forest products. Markets are fundamental in aiding the exchange of goods and services between people within an economy and in the distribution of goods among people and regions. If the way in which markets work is understood, it should be possible to assess particular markets to judge how well these operate and whether their functions may be improved. In contrast to the markets for processed or consumer products in large urban centres, relatively little is known about the decentralized markets for resource products that include fruit, small wildlife, and forest and other resource products, in local or rural areas. Markets for such items as gathered foods, craft products, firewood and charcoal are often informal in nature and there are few records and little information about most informal markets.

The harvesting of wild plants, grasses, fruits, bark, wood, small birds and insects for domestic use has traditionally been an important subsistence activity that has provided inputs for household use for many rural people (Cunningham 2000; Goebel *et al.*, 2000). In rural areas, where many people do not have access to productive land or jobs, poverty is prevalent, and harvesting of forest resources can provide the means to barter for needed items. With increasing commercialisation of many forest products, the harvesting and sale of these products has become important to the livelihoods of many rural people (Campbell and Byron 1996; de Beer and McDermott 1996; Cavendish, 2000). Knowledge of how markets for resource products work, and whether or how they can be improved, is important for many reasons. Better market performance is important to the rural people for whom these markets can be a means to contribute to household incomes and livelihoods. Knowledge of how markets for resource products work will also aid in developing effective and efficient policies to help manage the underlying resources, particularly where there are concerns about the ecological sustainability of the resource, relative to current or prospective harvesting or extraction.

Following this introduction, the primer turns to an overview of some basic concepts of markets and market operations (Section 2). In Section 3 some general features of rural markets are outlined. This is followed by a discussion of economic perspectives of market performance and an overview of some market research tools that may be applied to obtain a better understanding of how markets work (Section 4). A brief summary and some questions for discussion are given in the last two sections of the paper (Sections 5 and 6).

[1] Prepared for the Bark Markets Workshop, held in Zimbabwe in May 1999, under the auspices of Agroforestry: Southern Africa, a CIDA-sponsored project linking the University of Zimbabwe, Harare, Zimbabwe and the University of Alberta, Edmonton, Canada. Revised primer: April 2001.

Some basic concepts of resource markets

What are the Basic Features that Describe a Market?

Economists see the basic elements of a market in terms of the factors that are necessary for the exchange of goods and services to occur. The basic components of a market from this viewpoint are the existence of buyers and sellers and the means of communication that allow them to exchange goods or services. However, there are many different ways to describe markets and some of these can be useful to classify markets. Market descriptions can be based on the ways in which markets are organized to provide for market prices to be discovered; other market descriptions are based on the different levels at which exchange occurs as goods move from producers to consumers. Markets can also be described by the different functions that are performed at the various stages in a marketing chain. In this section different ways of describing markets are noted and other features of exchange and distribution are outlined.

Means of price discovery

One way of describing specialized markets is by how they are organized in terms of providing for prices to be discovered in the process of arranging for exchange of ownership. For example, auction markets and private treaty exchange markets describe two different ways that price discovery is pursued in organized market exchanges. Raw wool and cured leaf tobacco are two commodities that are frequently sold by auction through organized exchanges at the wholesale level of the marketing chains for these commodities.[2] For other commodities, prices may be established through the process of rapid public statements ("public outcry") of bids and offers in an organised exchange. This has been the traditional means of trading on both stock market and commodity futures exchanges, although public outcry of bids and offers is now being replaced in many stock markets and futures exchanges by computer matching of bids and offers. Private treaty trading, where the buyer and seller negotiate the price and other terms of the exchange of the goods is another frequently-used basis by which goods are exchanged. This occurs in a wide variety of institutional settings. Private treaty sales are typical of traditional and other informal markets in rural areas.

Levels in the marketing chain

Markets can often be usefully described by the level of the marketing chain, giving a description that implicitly summarises particular functions of the particular marketing chain. Examples of this type of market description are retail, wholesale, and "farm-gate" or "wood-lot gate" local markets. Several different stages of wholesale markets may be involved in a marketing system as products move through a marketing chain from producers to consumers. Thus resource products may move initially from producers to small traders who in turn may sell to bulking-up wholesalers, as product is accumulated into the larger lots that are traded in bulk-sale wholesale markets. Subsequently these products may be traded in smaller lots in bulk-breaking centres, where buyers may include small retailers or large consumers.

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[2] Marketing chains, which link primary producers or harvester-gatherers with final consumers, are sometimes called marketing channels; the multiple grouping of the different marketing channels that may link different groups of producers and consumers are often called marketing systems.

Geographical concepts of markets

Markets can also be described as centralized (examples are specialized exchanges or large urban markets) or decentralized (typically the case in rural areas where numbers of small local markets may be found within the regional area). Economic geographers have identified spatially-based hierarchies of markets that perform rather different functional roles (Skinner 1964, 1965; an overview is in Cunningham 2000). This includes (i) central markets, the large markets where wholesaling occurs and numbers of specialized markets may be found, (ii) intermediate markets, which are viewed to operate one step closer to the next category, (iii) standard markets, which are viewed as the effective interface for the end sale of city-based or import goods and the entry point for rural-based goods to move into larger regional markets, and (iv) minor markets, which are locations for local exchange by local people.

Similarly, markets may be described by economists on a geographical basis according to the scope of the forces of supply and demand, as in referring to the world market for lumber, which is a description that reflects economic linkages between numbers of large markets. Even so, many local markets also exist for such products and the localized influences of supply and demand are particularly evident at the local market level.

The basic elements of market exchange

In simple terms, the basic elements of market exchange are the existence of buyers and sellers, with the means of communication that enable them to make an exchange of the good in question. Buyers and sellers must have sufficient information and a means of exchanging information (communicating) so that they can agree on a price and any other necessary terms of exchange. Other terms of exchange to be determined in any market situation may include delivery arrangements, financing arrangements and quality specifications, including a guarantee of the quality of the good if it is bought on the sight-unseen basis of a grade description.

The means of communication required for markets to operate need not involve face-to-face communication between buyers and sellers, but can involve long-distance communication, either directly, between individual buyers or sellers, or indirectly, through the mechanism of a marketing agent (who sells on a commission basis) or even through a clearing house (as with organized commodity exchanges). Consequently, the exchange of goods need not be directly conducted between the buyer and seller, but can involve marketing institutions or agents who perform numbers of the marketing functions that are discussed in the following section. Specialized trading arrangements, as with sale through agents, require a degree of trust between market participants and the existence of a social system that ensures the enforcement of contracts. In traditional rural markets, the sale of resource and other products in local markets typically involves face-to-face exchange between buyers and sellers.

The process and functions of marketing

To understand how markets work, it is useful to understand some features of the process of marketing of primary products like resource and farm products. Marketing is the performance of all the activities necessary to transform a raw product from its point of production, harvest, gathering or collection, to the point of final consumption, whether as a food, medicine or household item. It is convenient to look at these activities in terms of three sets of marketing functions. These are the physical functions required for distribution, the functions that are

directly associated with exchange, and the facilitating functions of marketing that are necessary for the exchange and distribution functions to occur.

Knowledge of marketing functions is helpful in understanding how markets work. The functions that are involved in marketing all involve inputs of one form or another, whether of time, effort or money. Consequently the functions of marketing contribute to the costs of marketing, and also to the value created by marketing and to the effectiveness and efficiency of particular markets. The functions of marketing are listed in Figure 1.

Figure 1: The functions of marketing

I. Physical functions
   a. Transportation
   b. Storage/holding inventories
   c. Processing

II. Exchange functions
   a. Buying (this may include assembly of products from different sources/areas/quality assessments)
   b. Selling (this may include product planning/development/promotion)
   c. Price discovery/establishment

III. Facilitating functions
   a. Information provision
   b. Financing
   c. Risk-bearing
   d. Grading/standardization
   e. Good governance (security of people and property; provision of civil law that gives the basis for contract enforcement/bonding of agents; provision of other public institutions that enable markets to operate; regulatory activities that accommodate market failures such as externalities or public goods).

Physical functions

The physical functions of marketing that are required for the distribution of goods involve **transportation** from the point of initial production or harvest to the ultimate consumer. For primary or resource commodities, like the products of farms and forests, the raw product is typically produced or harvested over geographically distributed areas that generally are a considerable distance from the central markets associated with major consumption centres. Transportation costs can be a high proportion of total marketing costs when there is: regional dispersion of production/harvest; low value of product, relative to its bulk; poor transportation facilities; and/or perishable products. For example, markets for various rattans, which are second only to timber as the most important forest product in much of South East Asia, are largely dependent on demand for cane furniture in Europe (Dransfield and Manokaran, 1994) and thus are largely dependent on transportation to access European furniture markets.

Lack of transportation infrastructure will be reflected in higher levels of transportation costs in the process of marketing and these are normally reflected in the prices received by harvesters or gatherers. This was seen, for example, in a study of the marketing of vegetable ivory from tagua

palm (*Phytelephas aequatorialis*) in Ecuador. In that province with a poorer road network than in other study districts where tagua is harvested, Southgate *et al.*, (1996) found that that transportation costs were appreciably higher; households that were able to deliver directly to market intermediaries were paid prices that were 22 percent higher than if the delivery to was made at the farm gate. Even so, relatively costly rapid transportation may enable markets for high-valued forest products to be established and maintained. Cunningham (2000) points out the importance of the role of air transportation to transfer young leaves of the African medicinal plant khat (*Catha edulis*). The desired quality of khat leaves for chewing deteriorates rapidly with time; this product is sufficiently valuable that it is cultivated and a high level of organization is applied in order to rapidly transport it, by air, from farms in Kenya to markets in Somalia or even further afield in Europe.

Like transportation, the function of **storage**, involving the holding of inventories, is likely to be necessary at several different stages of marketing for products to be available at the time and place desired by consumers (Figure 1). Storage may be a major component of marketing costs when resource products are only seasonally available for harvest or when consumption has an appreciable seasonal component, reflecting seasonal preferences for consumption (as when preferences and demand increase at particular times of the year, such at Christmas or other seasonal celebrations). In the historic export trade of gum arabic from the Sudan, the lack of safe storage between seasons for both the bartered good, guinée (cloth from India), and gum arabic, led to wild swings in price that were a major market disruption (Webb 1985).

A more recent example of the importance of storage as a marketing function is seen in the case study for wood carvings in roadside markets in southern Zimbabwe. Sales of woodcarvings to travellers can be dependent on holding stocks of carvings to display to potential buyers but costs are involved in holding such unsold stocks, including the risk of theft, loss or deterioration and the opportunity cost of the stocks (Braedt and Standa-Gunda 2000). An example of deterioration of a forest product during the period when the product is displayed for sale is reported by Zimbabwe weavers of craft products made from the bark of baobab trees (*Adansonia digitata*). Rural households in the regional area north of Birchenough Bridge collect and weave bark into craft items, such as woven mats, hats and bags, which are often sold to travellers from simple uncovered roadside stalls (Veeman *et al.*, 2000). In interviews with bark-craft weavers and vendors in this region, sellers noted that over time, exposure to weather of items that they display at the roadside fades the natural dyes used by most weavers. Weathered baobab products typically have to be sold at a lower price than unweathered craft products sold by craft merchants from enclosed stores in this region. Added costs of sheltered storage would have to be incurred by householders to avoid weathering. Consequently many householders do not display their full stock but will bring these from their nearby homestead if requested.

Storage is one means of overcoming seasonality if the product is storable. However, storage may be particularly difficult or costly if a product is perishable. Together, transportation and storage are two important components of the physical functions of marketing that are necessary for distribution, and the performance of these two functions can involve appreciable marketing costs, while adding considerably to the value of products to the final user.

Processing is the other major "physical" function, reflecting the need for the transformation in the physical form of many products prior to their purchase and use by the final consumers. For many farm, forest and resource products, transformation of the raw product into the form that is desired by and of value to the consumer is a major marketing function that adds significantly to the value of a finished product. Consequently, processing is likely to be a major component of the marketing costs of the final product. One example of the contribution of processing to market value and costs is the transformation of the raw agricultural products of livestock or grain into the foods of meat, flour, or bread. Another example is the transformation of raw forest products, such as wood, into firewood or charcoal or the transformation of canes, wood, bark, grasses, or reeds, into artisan, craft, or artistic products such as furniture, baskets, mats, or carvings. In the agricultural and fuel-wood examples the processed products are likely to be relatively standardised, and thus costs are also likely to be fairly standard. However, the value added from transformation of resource inputs into some craft or artistic items can be more variable, reflecting technical and artistic skills of the artisan and the production process, as well as reflecting consumers' preferences.

Exchange functions

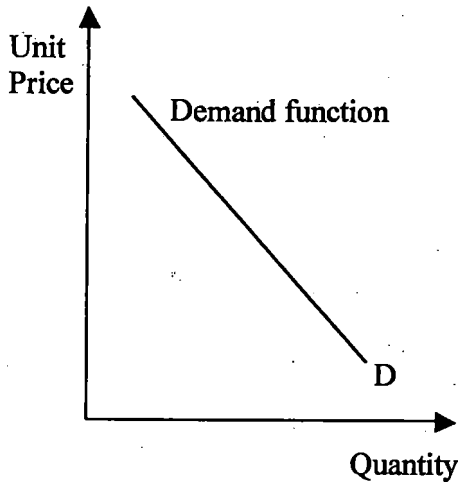
Exchange functions involve buying, selling and price establishment. These will occur at the various sequential stages of a marketing channel and in various institutional structures, as noted earlier. In a market setting, prices arise from a process of price discovery and price levels reflect the nature of supply (associated with the availability of the good and sellers' willingness to provide this at particular prices) and the nature of demand (associated with the preferences of consumers and their willingness to purchase at particular prices).

In a market context, economists conceptualise supply and demand as functions, or schedules, that relate price levels to the quantities that will be offered for sale (in the case of supply functions) and the quantities that will be purchased (in the case of demand functions), at alternate prices, while holding constant the other factors and influences that may affect supply or demand. These concepts are depicted graphically in Figures 2 and 3.

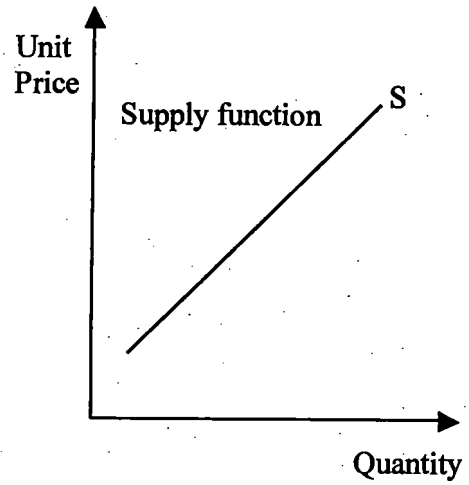
Panel 2.1 of Figure 2 depicts a demand function. The demand function for a good develops from consumers' preferences and constraints and reflects an inverse relation between price and the quantity demanded, all else unchanged. The downward (negative) slope of the demand function reflects the expectation that if the price of a good increases (for example, because supply has decreased), and all else is unchanged, the quantity that consumers are willing to buy will decrease, as buyers seek to substitute product from other sources or other products that may be substitutes; faced with higher prices consumers will postpone or reduce their purchases to the extent that this is possible. If consumers cannot postpone their purchases or if they cannot substitute other goods when prices increase, this will be reflected in a steeper slope of the demand curve. (Economists summarise the extent of the responsiveness of quantity demanded to a price change through a summary statistic that is termed the own-price elasticity of demand.) Similarly, if for some reason the price of a good was to decrease (for example, due to an increase in supplies), consumers will typically buy more of the lower priced good. Thus panel 2.1 shows the demand function for a good to have a negative slope, reflecting an inverse relationship between the price and the quantity that is demanded of that good.

Figure 2: Supply, Demand and Price Determination

2.1: Demand Function



2.2: Supply Function



2.3: Price Determination

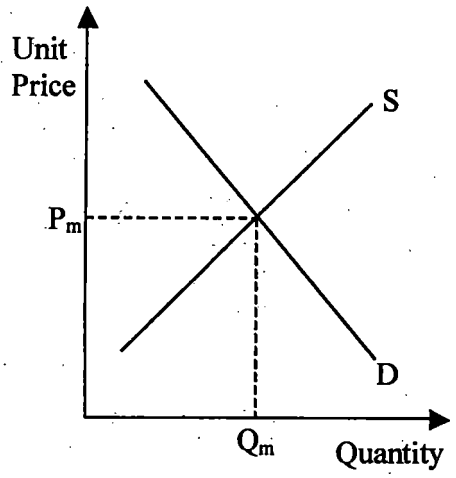
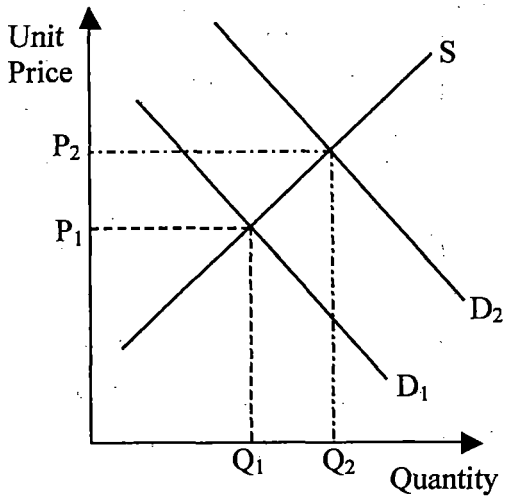


Figure 3: Price Adjustments as Supply and Demand Shifts

3.1: Demand Shift



3.2: Supply Shift

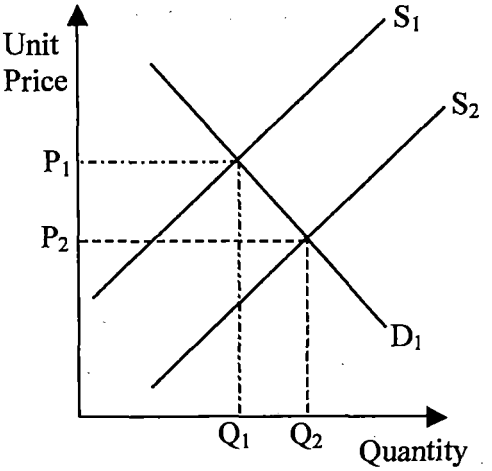


Figure 2 also depicts the upward sloping supply function for a good in panel 2.2. The supply function for a good is derived from producer-level decisions and behaviour. It reflects a positive relationship between sellers' willingness to sell and the level of price, since with higher levels of prices, all else equal, harvesters and producers will expend more effort to collect or process goods to sell. However, if prices are low, producers will normally reduce their efforts to produce and sell that particular good, in order to redirect their resources to gather, produce and sell other more remunerative goods. Consequently a direct or positive relationship is expected to apply between the prices that sellers receive for their goods and their willingness to offer that good for sale. This is reflected in the supply function that is depicted in Figure 2, panel 2.2 . The ability of producers to redirect their resources into other activities will be reflected in the slope of the supply function (the extent producers can change the quantity that is supplied is summarised by economists through a measure termed the elasticity of supply).

The third panel of Figure 2, panel 2.3, reflects the role of market prices as the equilibrating influence that equates sellers' willingness to supply and buyers' willingness to purchase a particular good. Market prices are determined where the willingness of consumers to purchase at different prices is just matched by sellers' willingness to offer that quantity of goods for sale. The equilibrium price and quantity where this occurs is depicted as Pm and Qm in panel 2.3. Pm is the market clearing price for those particular supply and demand schedules.

The two panels of Figure 3 depict the influence on market prices and quantities of "other factors" that can change the position of (ie shift) the supply and demand functions. Demand changes or "shifts" could come from a change in the number of consumers, due to a change in tourist visits, a change in the income levels of consumers, a change in the price of a substitute good, or a change in consumers' preferences for the good. An outward shift in the demand function, depicting an increase in demand (this could be due to an increased number of buyers or if buyers have higher incomes or more pronounced preferences for the good), will cause an increase in the level of market price (from P1 to P2) as well as an increase in the associated level of marketed quantities (from Q1 to Q2), as shown in panel 3.1. An example of a factor that could shift the supply function is a change in the numbers of harvesters because of a change in regulations or road accessibility or a change in the cost of harvesting or production. As shown in panel 3.2, an increase in supply that arises from an increased number of harvesters or a reduction in costs of harvest will, all else unchanged, lead to an increase in the quantities that are extracted and offered for sale (from Q1 to Q2). With an unchanged demand function, in this situation the market-clearing price will fall from P1 to P2.

At "down-stream levels" of the marketing chain, that is, at wholesale and producer levels of the marketing system, the concept of derived demand applies, since demand functions that apply at these levels are derived from the primary (consumer-level) demand function. Derived demand functions reflect the costs of processing and other marketing functions as well as the primary (consumer-level) demand function.

The process of price discovery, which results from the concepts of supply and demand, is a fundamental feature of markets and the process of marketing. As noted earlier, this may occur at different levels of the marketing chain and be organised through a variety of institutional arrangements. These arrangements may include auctions at livestock assembly yards, organised commodity exchange operations of open outcry or electronic bidding, and various forms of private treaty trading whereby buyers and sellers negotiate prices after physical inspection of the traded item. Private treaty trading generally applies in most local markets or for goods that do not have a precisely defined and generally accepted grading system.

Facilitating functions

Facilitating functions of marketing contribute to the effectiveness of how markets work to provide for exchange and distribution and the efficiency of marketing processes. This group of functions includes market information, financing, and risk bearing. Grading and standardisation may also be important. Provision of a social environment that leads to enforceable contracts and the absence of theft or graft could be termed "good governance" and this is another important market facilitation function which is listed, with some general examples, in Figure 1. Some of the facilitating marketing functions may be provided by specialised marketing agents that operate at various levels of a marketing channel. In other market situations, buyers or sellers may provide for some of these functions. Lack of facilitation of markets and marketing processes may reduce the productivity of market participants, reduce the utility and value created by marketing processes and add unnecessarily to the uncertainties and other costs of marketing resource products. Relatively few facilitating services of marketing are available for resource products in many rural and regional markets.

Market information is basic to the operation of markets. Accurate market information reduces risk to market participants and allows better planning of harvesting and marketing decisions. Knowledge about prices in other markets is also necessary for arbitrage – trading that occurs in response to the existence of different prices in different markets – to occur. Arbitrage enables product to be transported to locations where supplies may be scarce or where demand has increased, from regions where supplies may be abundant. Provision of market information that is accurate and timely can be carried out by private marketing agents but market information can also have public good features indicating a potential need for government involvement, as with the need to prevent fraud through ensuring accuracy of weights, other measures, or quality standards.[3]

An example of the contributions of new information technologies to small traders and rural people is the use of telecommunications in rural Costa Rica, enabling small coffee growers to get current market price information from centrally located co-operatives, since these have links, through computers, to sources of information on national and international coffee prices (World Bank 1999). Another example is the use of cellular phones by farmers in Cote d'Ivoire to get international cocoa price quotations directly from Abidjan. A third example arises from the introduction of telephone service to several rural towns and villages in Sri Lanka which allowed small farmers to obtain first-hand up-to-date information on wholesale and retail prices of fruits and vegetables in Columbo, the capital city. Since this has been the case they have been able to sell their crops at prices that are reported to be 80 to 90 percent of the Columbo prices, an appreciable increase over the 50 to 60 percent of the capital city prices that they used to get (World Bank 1999). Help from a non-government organisation called Peoplink has enabled women in Panama to post pictures of their handicrafts on the World Wide Web, enabling them to gain access to a world market (World Bank 1999).

The marketing function of **financing** is necessitated by the costs of holding inventories of unsold products or inputs during periods of transportation, storage and processing. These costs will be greater for products for which there are considerable time lags in processing, transportation or storage or where there is seasonality in supply or consumption. Where time-lags occur, the possibility of risks also increase. The possibility of physical or financial risks adds to the costs of **risk bearing**. Risks may arise because of thefts, product spoilage and deterioration, or because unanticipated changes occur over time in prices received and costs paid. Risk-bearing costs may be high for valuable products and where functions of "good governance" are not well-provided or when there are uncertain or unstable market prices. All these characteristics may be related.

The very high level of risks in the terms of exchange for gum arabic, which was the most important trade good exported from Mauritania and Senegal from the late 17th Century until the 1870's (when it was eclipsed by the export of peanuts), was reflected in very high returns for successful traders. However, many traders were unsuccessful, due to the risks from uncertainty in the supply of this forest product and the risks of inherent in the availability of imported traded cloth, for which gum arabic was exchanged prior to its shipment to European markets. At that

[3] Since the benefits of public goods are not reduced by any one person's consumption of these and it may be neither possible (nor desirable) to prevent more people from consumption, there is little private incentive to provide such goods. Consequently public goods typically require collective provision, as through government.

time, gum arabic was widely used in making paint, paper and glue, in sizing cloth and in a variety of other uses (Webb 1985).

Grading and standardization can be an important marketing function for some resource products. If products can be sold on a "sight unseen" basis, so that the costs of physical assembly for purposes of inspection can be avoided, costs of marketing can be appreciably reduced. Grading and standardization can be achieved if the product has readily measurable characteristics that are relevant to users or consumers and if the distribution of relevant characteristics enables products to be categorised into well-defined groups of fairly homogenous product, based on relevant characteristics. In practice, grading systems are important for most agricultural or food products that arise from the commercial farming sector and where quality cannot readily be assessed by all buyers. The ability to apply and enforce grade standards can reflect features of "good governance."

Some examples of grading and standardisation systems have been applied and maintained by government; for others, this has been pursued successfully by associations of producers and traders. One agricultural example of a successful focus on quality improvement for a food product is the program by the national Dairy Development Board in India in the 1970s to improve quality of milk. Increasing demand for milk from the 1950's had led many vendors to water milk, leading to a drop in quality overall since quality could not be detected by buyers and honest sellers could not match the prices charged for watered milk. Quality improvement focussed on the assistance of the board to establish village milk co-operatives and the distribution to each co-operative, and to distributors and marketing agents, of a simple mechanism to measure butterfat content. Consequently, prices could be paid for unwatered milk that reflected this aspect of quality. Strengthening the incentives to market milk of high quality by this means, allied with help to co-operatives to improve management and aid in construction of processing facilities and for refrigerated transport, have been credited with major improvements both in milk quality and the achievement of higher incomes by producers – within a decade, producers in the target areas of India were reported to have doubled their incomes from milk sales (World Bank 1999).

The lack of buyers' assurance of quality, if this is not obvious from inspection of the finished product, may reduce the benefits to local producers from sale of some resource products. An inability to guarantee quality may hamper market development. Quality improvement can achieve increased returns from resource-based products. For example, in circumstances of decreasing rattan supplies in Malaysia, orienting the processing of rattan cane furniture to the levels of design and quality standards to achieve added value associated with sales to the "high end" of the European market for rattan furniture was a market development strategy advocated for Malaysia by Loke *et al.*, (1996). An example of quality differentiation in craft sales may also be observed in some villages in the island of Bali (Indonesia) where woodcarving is a long-established artisan activity. In the retail sales of carvings the pricing structure for these crafts is generally differentiated by the level of skills of the carver, through the higher levels of prices for items made by master carvers than by apprentices.

Provision of "**good governance**" is necessary for the effective operation of markets, amongst many other features of a well-functioning society. Security of people and property and the

maintenance of well-defined and accepted systems of civil law or customary practices are necessary to enforce valid contracts and to reduce physical and market risks. Rules governing market operations need not only be those defined by formal institutions, such as government, but may also be informal rules and regulations or norms of behaviour, established by traditional leaders or informal groupings of users. Provision of basic institutional infrastructure that allows goods to be moved through the marketing system in order to reach consumers is also necessary for markets to operate effectively, as is the provision of the means for buyers and sellers to communicate.

Situations of market failure can arise where there is monopoly or monopsony in the marketing chain. Market failure can also arise from unpriced effects of harvest or production that impose external costs or benefits of consumption on others (externalities) or in the extreme case of externalities that involve public goods. Market failure may also occur where knowledge is imperfectly available, as when there is asymmetry of information between buyers and sellers. In these various circumstances, market prices do not reflect social values and markets do not work well to achieve efficient outcomes. Effective public policy to rectify these effects will be necessary for effective and efficient market operations.

Good governance reflects a political, social and economic environment within which public policy can be framed and directed at externalities and other sources of market failure. Good governance also reflects an environment that does not encourage opportunistic behaviour (see below) that may limit effective markets and limit effective marketing processes. While good governance should be the objective of government policies, the policies and actions of government may have some undesired consequences. This has been thought to be the case for some, but not all, marketing boards for agricultural products.

Opportunistic behaviour, defined as acting in self-interest with guile (Schaffer *et al.*, 1987), involves taking advantage of circumstances in ways that may be defined as corrupt in some cultures. This results in a lack of trust in market participants. Opportunistic behaviour may reflect asymmetry in information or a lack of institutions to provide information. It benefits individuals at the expense of others in the marketing system, increasing marketing costs and restricting the use of markets. For example, opportunistic behaviour in which grade descriptions or measures cannot be relied upon, resulting in all transactions requiring visual inspection, increases marketing costs and reduces the opportunities to achieve the economies of scale through larger-scale market operations and the linkage of markets over large geographic areas. Consequently, the benefits that arise from well-functioning markets that, in turn, contribute to the integration of economic activities between regions, and the associated benefits to producers and consumers of access to larger-scale markets, are lost. Instead, there are fragmented and "thin" markets that are not well-integrated within the regional economy.

In the situations outlined above, markets do not provide their desired broader economic benefits of contributing to specialisation, economies of scale, and increased income and employment by market participants. Instead, market participants may continue in subsistence activities, marked by small-scale nature and a lack of specialisation and exchange, while markets exhibit uncertain and unstable prices, contributing to risk and uncertainty for market participants.

Marketing and value creation: Marketing as a productive activity

Some people who manage primary resources, like farmland or forests, may be particularly aware of values associated with those resources and dismissive or less aware of the values created in the process of marketing. Typically the complaints against "middlemen" do not recognise the vital and productive role that they play in the process of exchange and distribution (Abbott 1987). In making primary or resource products and services available in the time, form and places in which they are desired by consumers, the process of marketing creates value (or utility in economic terminology) by adding utility of time, form and place to the original forest product. Consequently, marketing is a productive activity in its creation of such values. The rewards to these activities may not be substantial. Nonetheless, they can be important sources of livelihood for people who have few alternative employment prospects. In situations where markets function well, the monetary values (unit prices) that are expressed at different stages of the marketing chain can be taken as a measure of these contributions and the costs that are associated with them.[4]

As implied in the discussion in the preceding section, well-functioning markets offer participants the opportunity to adjust their patterns of household activities and production in order to achieve the economic benefits of specialisation and exchange that are made available in the context of a larger market. However, if markets do not function well, as when there is opportunistic behaviour and consequent high transactions costs, or in cases of externalities or public goods, market prices may be unreliable measures of social benefits and costs of production, marketing and consumption, as opposed to the private benefits and costs of these activities. This may occur with resource or forest products that are derived from communal forests where customary practices to ration use may have broken down due to pressures on social or economic systems within the community, leading to unplanned depletion of the underlying resource.

Another example could arise from sale of resource products in export markets if over- or undervalued exchange rates distort international price signals. A further example could arise from the exertion of market power in situations of monopoly or monopsony.[5] In these types of instances, in analysing a market in order to assess market performance and in seeking ways to improve resource management or market operations, it is important to be able to make some assessment of the nature and source of opportunistic behaviour and the source, nature and impacts of any externalities, (i.e. any extra-market benefits or costs), or other market imperfections that may be associated with the product and its extraction, use or sale.

Who performs the functions of marketing: Market institutions

A fuller understanding of how markets work will be gained if both a functional and an institutional focus are taken in studying markets. The institutional approach is directed at determining the institutional components of marketing systems in order to answer the questions –

[4] These monetary values may also reflect profits or rents that relate to resource scarcities or the returns to entrepreneurship or risk-bearing.

[5] That is, where the ability to control market supply or demand provides single sellers (monopolists) or single buyers (monopsonists) with effective power to influence market prices. Appropriate public policy in these instances may encompass competition (antitrust) legislation and/or policy or other ways to improve market competition, as through reduction of non-tariff or tariff barriers to encourage import competition.

"who are the people and what are the institutional structures and associated operational rules that are involved in the various stages of marketing, from the point of harvest to the point of consumption?" This can be very effectively allied with a functional approach so that understanding is achieved of the various marketing functions that are performed by the different institutions in the marketing system.

A typical classification of marketing institutions distinguishes the roles of marketing agents – those who perform some of the functions of marketing but do not take title to the goods they handle – from traders, producers and processors who do take ownership of the goods in question. The distinction between these two categories of traders is of importance since the structure of incentives, risks and market functions for these two groups are generally quite different. Marketing agents include those who sell on behalf of others, for a fee, salary or commission as well as those who provide such services as transportation or facilitating activities to producers, processors and traders.

In contrast to marketing agents, traders take ownership of goods and resell to best advantage, often performing functions that contribute to the accumulation of products to the point of bulk sales (wholesaling) and subsequently to their dispersal (where traders may be known as brokers or jobbers). Consequently traders contribute to risk bearing and exchange functions in particular. As well, traders often contribute to transportation and storage, amongst numbers of other necessary marketing functions. Traders could potentially be classified by the scale of size of their operations (large or small). They may also be classified as travelling merchants, who sell at varied locations, or as permanent traders, who sell at a single location.

Processors constitute another important category of marketing agents. This is also the case for facilitating institutions. Facilitating marketing institutions include those that operate various forms of price discovery mechanisms or provide other services that facilitate the operation of a market. An example of a facilitating institution is the institution CAMPFIRE (Communal Areas Management Programme for Indigenous Resources) which provides for the marketing of wildlife leases by rural district councils in Zimbabwe (Bond 1999).

Some features of rural markets

Information on rural markets has come from the studies of economic geographers, economists, anthropologists, and ethnobotanists. Some of these have provided valuable delineations of spatial, functional, economic, cultural and social characteristics of numbers of local markets.

Traditional or periodic markets are often found in rural areas. These markets operate at an appointed location at which people gather to buy, sell, or interact socially (Bromley 1980). Periodic markets occur regularly (e.g. weekly) at long-standing locations and may be a major means for small-scale farmers and artisans to find markets for their products. They also may be a major source of access by rural households to locally-produced goods. In slightly larger centres in rural areas there will be traditional permanent markets, held daily, which also perform these roles, where permanent sellers maintain stalls. Processed domestic foods and household products may also be available for purchase in a local store in some rural locations, but the range of store goods may be sparse.

Typically, in traditional markets, rural people bring goods that they have harvested, produced, or constructed for exchange or sale to other rural people and other buyers. Traders may also bring goods that they have purchased for resale at local markets. Traditional markets may not have major facilities but customarily occur regularly, in long-established locations. Exchange occurs on the basis of private treaty involving inspection, typically with immediate sale and settlement. Some specialised rural markets, directed more at tourists and travellers than other rural residents, are evident on roadsides or near tourist attractions.

In the 1960s and 1970s, numbers of studies were conducted in traditional markets that challenged some widely-held views that the activities of rural traders were exploitative and unproductive. Studies of the temporal and spatial relationships of prices, mainly for foods, were pursued in order to assess these dimensions of pricing efficiency.[6] The results were mixed. Comparisons were complicated by a lack of transparency of prices and the fact that differences in prices could be hard to assess, due to a lack of standard measures and grades. Even so, numbers of the studies that compared prices in spatially separated local markets concluded that there is a tendency for traditional markets to show price differences that reflect transportation cost differences between spatially separated markets (this type of price pattern is consistent with the "law of one price" which implies that there are effective linkages between markets that are geographically separated). Price variations that are more or less reflective of storage costs within a year were also found when temporal price patterns were assessed. Conclusions of this type have been reported for traditional markets in both Asia and Africa (Riley and Weber 1983). Most of these studies assessed the relationships over space and time for market prices of non-perishable storable foods (such as rice or other grains).[7] This sort of pattern was found for craft items made from the bark of baobab trees *(Adansonia digitata)* in a study of markets for craft items in Zimbabwe in 1999 (Veeman *et al.*, 2000).

Despite indications that the "law of one price" often applies within regional markets for non-perishable goods, there are concerns that traditional markets may not always be efficient (Schaffer *et al.*, 1987). Efficient markets require transparent prices. Private treaty trading, whether conducted in rural markets or other contexts, does not tend to accurate price reporting. Lack of defined measures and grade standards does not add to price transparency. If markets are thinly traded, with small numbers of sellers or small volumes, and if few buyers are attracted to these markets, prices will be volatile and hard to predict, contributing to uncertainty in planning by market participants. In these circumstances, poor communications and the lack of transportation may discourage suppliers and buyers and limit the scope and size of the local market.

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[6] The appropriateness of these features as a complete measure of pricing efficiency is debatable. Pricing patterns that reflect transportation and storage costs may be expected in perfectly competitive markets. However short-term variations in supply and demand may obscure this. The issue is discussed further in Section 4.4

[7] This type of price pattern is not expected if market information about prices is not readily available to buyers and sellers, when there is little information about the quality of goods for sale, when markets are small and there are few traders. These circumstances apply for sales of the medicinal bark of *Warburgia salutaris* in Zimbabwe. Prices for unit quantities of this product, based on purchases from and interviews with sellers of medicinal bark in markets in major centres and intermediate markets in Zimbabwe, in May 1999, did not demonstrate a spatially-consistent pattern of prices (Veeman *et al.*, 2000).

Unpredictable, unreliable markets do not encourage investment in market infrastructure. Such markets do not encourage the development of specialised market agents (brokers, agents, and facilitators) who may contribute to larger markets that have more scope for specialised activities. Consequently, the growth in exchange and the growth in market and employment opportunities that can be available in larger regionally-integrated markets are not achieved in most local markets (Schaffer *et al.*, 1987).

The lack of provision and maintenance of infrastructure to facilitate transport and communications is recognised to be a major problem limiting the expansion of markets and trade in non-industrial economies (Ahmed and Donovan 1993). High marketing costs reduce the possibility of local and regional trade and limit the economic linkages between urban centres and rural communities. The emphasis on reduction in government expenditures that has accompanied structural adjustment policies appears to have contributed to the lack of investment in communication and transportation infrastructure in the 1990s. Governments may try to stimulate local value-added by simple means, such as by export bans on the unprocessed products. (Numbers of countries follow this policy for lumber, for example). However, successful development of local processing requires adequate infrastructure in the form of transportation and communication, as well as management capability, access to capital and knowledge of buyers' preferences and how to cater to these.

Any seasonal variations in supply or demand are likely to be reflected in seasonal price variations for those products. Seasonal price differences for such products should not be confused with a trend in prices which could reflect more fundamental changes in supply or demand, such as from an increase in demand arising from increased income of consumers or from a decrease in supply, reflecting scarcity associated with depletion of the resource. An example of the impact of seasonality on product availability has been noted by Cunningham (1990, 2000) for palm wine in an area of south-eastern Africa – when the popular local wild marula fruits (*Sclerocarya birrea*) were available, commercial sales of palm wine fell as households brewed their own preferred substitute. However, at Christmas time, when migrant workers were home, palm wine sales increased.

Analysing markets: Marketing efficiency and performance measures

The concept of efficiency

How do we evaluate how well a market works? Well-functioning markets help to maximise welfare from marketing processes and help to minimise marketing costs. The long-recognised economic approach to market assessment relies on the concept of marketing efficiency. Conceptually, marketing efficiency is viewed to be composed of two fundamental components. These are pricing and technical efficiency (Figure 4). Technical efficiency relates to the least-cost way of organising the functions of production and marketing, in order to achieve the most cost-effective means of satisfying consumers' preferences and demand. Examples of technical efficiency could be the use of appropriate and cost-effective technology and procedures in transportation, handling and storage in order to reduce spoilage and wastage from the point of harvest to the point of consumption. In contrast, the concept of pricing efficiency relates to the pricing characteristics associated with an efficient and well-functioning marketing system. The

types of criteria that could be used to judge whether or not a market displays pricing efficiency include:

- whether consumers' preferences are reflected in the prices that are transmitted through the marketing system, so that the variety and types of products and services that are preferred by consumers are the types of products and services that are in fact harvested, produced, processed and marketed.

- whether the prices of goods and services reflect actual or potential competition in the provision of marketing services and functions, so that costs associated with marketing are not inflated by inefficient practices or excess profits (rents).

Although there may be many circumstances in which pricing efficiency and technical efficiency are complementary concepts, there are some instances in which these two influences may conflict. Examples arise in situations in which achievement of economies of size of individual firms is limited by the small size, in terms of effective demand, of the regional or national market for a manufactured good. In these circumstances, the available economies of scale that are involved in manufacturing could be exhausted by only one or two firms but the existence of one or two firms could compromise pricing efficiency, even though an industrial organization policy that maintained only one or two firms could be technically efficient.

Figure 4: Concepts to assess marketing efficiency

Market(ing) efficiency reflects a combination of:

a. technical efficiency, reflecting technical efficiency and the growth in this over time (i.e. productivity) of the marketing system and its components; and

b. pricing efficiency, reflecting:
   (i) whether prices and the markets that generate these are responsive to consumers' preferences; and
   (ii) whether the prices of goods and services reflect the minimum levels of costs (implying competition in the provision of marketing services that drives down monopoly rents and reduces inefficiencies in marketing processes, as well as the absence of external technical economies or diseconomies ("externalities") such as may arise if inputs are unpriced or if their prices do not reflect social costs).

Industrial organisation concepts relating to market performance

Economists have devised a number of formalised theoretical models of economic behaviour that relate particular characteristics of market structure and conduct to reasonably predictable market outcomes. These models (described as perfect competition, monopolistic competition, oligopoly models of various types and monopoly)[8] are stylised representations of economic behaviour. The economic theory of the

[8] Perfect competition refers to an industry in which there are large numbers of firms (i.e. sellers), each of which acts independently, with full information, in producing and selling a homogenous product. No firm can individually affect price levels. In the long-run, increases (decreases) in market prices in excess of

impact of firm behaviour on industry outcomes, known as industrial organisation theory, provides some insights that may be useful in assessing how markets work and how market performance may be assessed. The primer now turns to these issues.

The classical paradigm of industrial organisation analysis relates market structure and the behaviour of firms that operate in a particular market to market performance, as depicted in Figure 5. Following Bain (1969) and others, the parameters of market structure are viewed to involve the number and size distribution of competitors; the barriers that may limit entry and exit; whether the product is homogenous or differentiated and whether there are substitutes for the product. Other structural factors relate to the existence and extent of vertical integration; the availability of information; the nature and extent of risk that confronts economic agents in the particular market and characteristics of demand, such as the existence of consumption substitutes.

The conduct dimensions of this paradigm relate to the behaviour of economic agents in the industry. Specifically, market conduct focuses on whether firms act independently or interdependently in their output, pricing and product (i.e., non-price) decisions, and the nature of these decisions. The nature of the interdependence between firms that applies in actual markets is of importance. This may involve different forms of rivalry, or different forms of co-operation. Some of these types of behaviour may in turn influence structure, while market structure and conduct influence industry performance. Market performance, reflecting resource allocation at the industry level, is often assessed in terms of measures of profitability, whether economies of scale are exhausted and other efficiencies are achieved, whether innovation is stimulated and the nature of the variety and product choice that confronts consumers (Bain 1969; Green 1990; Jacquemin 1987; Scherer and Ross 1990). These criteria are noted in Figure 6.

(below) average costs will attract new entrants (cause some firms to leave) causing supply to adjust to the point where costs are just covered. In monopolistic competition, however, each of the large number of small firms may have some ability to influence selling prices and asking prices may vary somewhat since each firm sells a slightly differentiated product or service. In oligopolies (oligopsonies) the sellers (buyers) are fewer in number and larger in size; firm and industry conduct and performance is more difficult to predict. In an industry with a monopoly (monopsony) there is by definition one seller (buyer) of a product that has few if any substitutes; subject to the nature of the market demand (supply) that faces this firm there may be significant departures from pricing efficiency and the potential for the firm to earn excess profits.

Figure 5: The industrial organisation paradigm

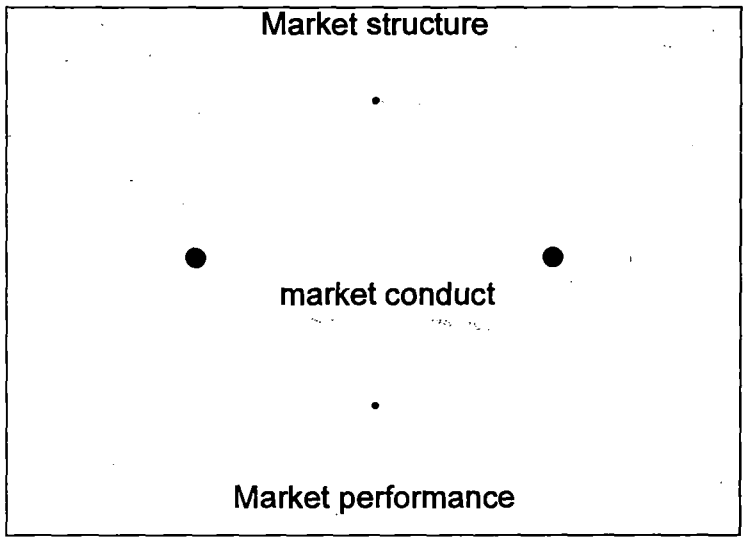

Figure 6: Market structure, conduct and performance: major measures

A. Market structure	Number and size distribution of firms (concentration ratios) Barriers to entry - capital costs; scale economies; conduct of firms; regulations Nature of product - homogenous or differentiated; existence of substitutes
B. Market conduct	Independent or interdependent actions Coercive or collusive behaviour
C. Market performance	Profit levels – are these excessive or "normal"? Cost levels – are economies of scale exhausted; is there inefficiency in operations that reflects a lack of competitive pressure – sometimes termed x-inefficiency? Innovativeness of the firm/industry Product choice available to consumers

Recognition that the concept of perfect or "pure" competition is a useful conceptual abstraction, rather than a description of real world markets, led to the concept of "workable competition". This was considered to apply when there is rivalry among sellers, sellers try to maximise profits and price discretion is limited by the option of buyers to purchase from rival sellers (Clark 1940). Thus, when there are several sellers of a particular product, driven by the goal of profits, and when easy entry conditions for new sellers keep established firms honest, workable competition ensues (Green 1990). The crucial importance of conditions of entry to firm conduct and industry performance is also recognised by a subsequent concept of industrial organisation theory, contestable markets. Baumol *et al.*, (1982) have argued that the welfare properties of perfect competition can be achieved under conditions of oligopolistic markets as long as there are no impediments to firm entry and exit.

In practice, market competitiveness can be viewed as a matter of degree and the conditions of entry of potential competitors to any market or industry are viewed by economists to be an important influence on market conduct and performance. Cost advantages may accrue to existing

firms because of economies of scale, learning by doing, or customer loyalty. Existing firms may also have an advantage because of experience with and knowledge of local culture, customs or language. Natural barriers to entry due to geography may partially be overcome by transportation and communication, limiting the extent to which existing firms can raise prices above their average cost. Governments may also create barriers to entry. Examples include quotas, permits, preferential purchasing, and patents. Competitiveness is aided if industry and markets remain open to new entrants, rather than restricting or regulating entry. Improvements in transportation and communication infrastructure will increase market competition. Low levels of economic protection to local industry, through low levels of tariffs and the removal of non-tariff barriers, can act as a surrogate for easy entry, providing competition from imports for firms operating in fairly concentrated markets.

Documenting marketing margins, channels, and returns within the marketing system

In view of the lack of knowledge and the lack of published data on the operations of local markets, field research methods that include participatory involvement of researchers with key informants who represent or are knowledgeable of the industry, such as suppliers, producers, traders and other participants in the marketing chain, is necessary to identify major marketing channels, issues and problems for many local markets. As pointed out by Trager (1995) "The basic (i.e. minimum) questions to be considered in studying exchange and distribution systems include the following: 1. What is being exchanged or distributed? 2. Who is engaged in these exchanges? 3. How are exchanges organised? 4. When does exchange and distribution take place? 5. Where does exchange and distribution take place?"

A useful collection of case examples of the application of various market research tools to particular market issues and problems is given by Scott (1995). Examples of particular studies of markets that use participatory or rapid appraisal methods are reported by Morris (1995), Holtzman *et al.,* (1995) and De Jong *et al.,* (1999). A summary of research procedures used to explore the role of indigenous rural markets in two areas of Nigeria is given by Porter (1995) who outlines the need for pre-field research procedures of library and archival research, including collection of detailed maps and the gaining of necessary regional and local permissions. Initial field-level activities include identification of location of markets, from printed schedules and key informants and the construction and testing of interview guides/surveys. This requires pre-testing and subsequent application with the help of field assistants who must be recruited and trained. A collection of papers outlining issues in field-level data collection is in Deveraux and Hoddinott (1993). A more general overview of some economic concepts and tools of market analysis is given by Scarborough and Kydd (1992). An overview of some market research tools that takes a business-oriented focus is given by Crawford (1997).

The appropriate analytic approach and method to be used in any particular market analysis should, of course, be considered in the context of the particular market issue or problem and this should be identified prior to survey design and application. A call to use standardised methods and measures in collecting data and reporting the results of studies is given by Moran (1995).
A first step to describe markets applying methods noted above is to follow the basic questions posed by Trager (1995) as the means of identifying the major marketing channels for a product

from the stage of initial production, or harvest, until it reaches the final consumer. It will be useful to identify who performs the various functions, the manner in which they are performed and where possible, the margins and returns that accrue to participants. Identification of the people, organizations and institutional arrangements involved in performing the various marketing functions within the particular marketing system can be developed from interviews with key informants, as from participatory surveys of a representative sample of market participants. This will identify the basic characteristics of the marketing system. Procedures used to document marketing channels and margins for commercialised crops in a region of Mexico are discussed by Mendoza (1995).

Calculation of a simple gross marketing margin (consumers' price less producers' price) is typically reported as a percentage of consumers' price. Alternatively levels of unit marketing costs, and the components of this, can be surveyed, allowing the net margins (net of marketing costs), to be calculated and reported, as with value-added estimates (final selling price of the finished product less cost of all purchased inputs). These measures require detailed information from market participants. This, in turn, raises questions about the accuracy and reliability of the price and cost data that may be elicited, raising issues of sample size and sampling procedures.

Price surveys that are conducted at various levels of the marketing channel can provide information on the stability or variability of prices at these levels and the distribution of the gross or net marketing margin at different levels of the marketing channel. Some price data may be available from government sources. The quality of available price data and its applicability to the marketing issue that is of interest to the researcher should be assessed. For example, Ngugi *et al.*, (1977) were able to apply cointegration methods of price analysis to official price series for maize, collected for the construction of the national consumer price index, to an assessment of the implications of maize market liberalisation in Kenya.

Broadening the scope of sampling and recording spatial and temporal prices can provide information on regional variations in prices and on the existence of systematic and erratic (or random) differences in temporal prices that may reflect some or all of: patterns of seasonality in prices; price cycles that may be associated with changes in production patterns over a number of years; and any long-term trend in prices. This type of price analysis, as applied to rice and maize in Ecuador, is discussed by Tschirley (1995). Identification of marketing channel participants and marketing margins will not provide all the information needed to assess market performance. It will, however provide basic information on some features of the marketing system. Since cultural affinities can be important components of market networks, economic issues generally need to be assessed in their social and cultural context. Consequently, a multidisciplinary approach to identify the participants and features of local and regional markets is likely to be informative in obtaining a fuller understanding of the marketing system for a particular product or group of products. A multidisciplinary approach may also aid identification of operational rules, whether formal or informal, that govern the behaviour of those who participate in the market.

Analysing market prices

More complex assessments of price relationships between regions and over time can be performed to assess regional and temporal aspects of market integration and price linkages.

These require relatively large amounts of reliable price data. Supplemented by reliable data on quantities that are produced and consumed, together with other information on the structure of particular markets, economists have developed and applied models of trade flows, demand estimation and the assessment of preferences of purchasers.

As was noted in Section 3, analysis of time-series or cross-section (spatial) price observations has been pursued to assess aspects of pricing efficiency related to "the law of one price". In their simplest form, such assessments have been based on testing whether prices in different markets are correlated statistically or whether the price differences (margins or spreads) that are exhibited between spatially separated markets are relatively stable. These relationships can suggest that such markets are highly integrated, as one would expect if arbitrage can occur. In the same vein, if price differences between particular markets reflect the costs of transferring products between those markets, it could also be inferred that markets are relatively competitive. Further, if the levels of costs that separate markets spatially are as low as possible, technical efficiency could be inferred. However evidence from simple tests of correlation of price series may not always reflect the existence of market competition or market integration but might simply reflect the influence of inflation in the general level of prices, or trends in population or income that are reflected in trends in demand (Badiane 1999). With reliable price series, economists have sought to test for patterns of associations in prices employing more sophisticated "time-series" analysis that focuses on various structures of autoregressive lags in different time series of prices. This type of study tests for patterns of statistical association that may imply patterns of causality and seeks to identify the nature or "direction" of such causality. An early example is given by Ravallion (1986) for rice in Bangladesh. Such studies that test for "co-integration" of prices may also be allied with structural analysis of markets. An example of time series analysis of prices for wood carvings, reported in three nearby craft markets in Zimbabwe was undertaken by Braedt and Standa-Gunda (2000).

Other approaches to analyse markets

A variety of other analytical approaches may be also applied that focus on marketing opportunities for particular groups of producers or for particular products. These could include, for example, assessments of potential demand and business plan analysis. Reference to standard texts on marketing methods, marketing analyses, and business planning will indicate the variety of alternative methods that may be applied to assess particular marketing issues and problems.

Another approach to the analysis of markets is to focus on the implications of policy interventions. One tool to analyse agricultural commodity markets along these lines involves the concept and methodology of the policy analysis matrix approach developed by Monke and Pearson. This approach is reported on and applied by Shapiro and Staal (1995) and Staal (1996) for dairy in regions of Kenya and in Addis Ababa, respectively. The procedure focuses on profits, the difference between revenues and costs, and attempts to assess divergences between private (i.e. market) and social (i.e. socially optimal) values of these. The estimates are arrived at for each input and output relevant to the activity that is the focus of the study (e.g. the production and sale of milk). A policy analysis matrix will develop estimates of the absolute levels and divergences between private values and social values for revenues and costs (for tradable goods and non-tradables), and will relate these to estimated costs of subsidies, taxes, duties, rent

seeking, and market failures. Accurate detailed budget data are needed for the various activities in this macro-level approach.

The Organization for Economic Cooperation and Development has adopted a somewhat related approach to summarise some features of policy impacts on the marketing system of the industry sector, more commonly used to assess the aggregate impacts of national policy on farm sectors in high income nations. This involves the calculation, based on agreed procedures including the basis for specification of comparison prices, of the transfers to agricultural producers that are achieved through various government-based policies, and also the implicit consumer-level taxes that may be the means of achieving these transfers. The resulting estimates of producer and consumer subsidy equivalents are used to monitor and compare national policy interventions (for example, see OECD 2000).

Policy-oriented analyses may also be based on collection and analysis of disaggregated data, at the level of the household, or for individuals. An extensive body of literature has been developed, for example, on methods for household surveys related to nutrition and food availability and for labour use studies. Examples are outlined by Von Braun and Puetz (1993).

Summary and conclusions

This primer has provided an overview of some basic economic concepts that relate to the markets for resource products. Basic approaches to analyse markets and to assess market performance were outlined. Detailed knowledge of the structure, conduct and performance of local and regional markets for most resource products is lacking. Documentation of marketing channels, institutions, and functions, allied with analyses of marketing costs and returns, will aid in filling gaps in knowledge about the market systems for these products. Knowledge provided by market participants of the issues and problems that they face will aid the understanding of how these markets work. This information will also aid in understanding the nature of the important potential contributions of these markets to the livelihoods of rural people. Understanding and documenting the performance of markets for resource products may aid in developing policy or interventions that may improve the structure, conduct and performance of markets. More knowledge may contribute to appropriate resource management policy that is oriented to assisting individuals, households and communities to improve and sustain their access to employment and income derived from resource products.

Some Issues/Questions for Discussion

1. What differences might you expect to find in the types of marketing functions and the ways that these are performed in:
   a) large urban markets for consumer products;
   b) regional wholesale markets for farm products, and
   c) local rural markets for resource products?

2. Do you agree with the following statement? Why?
   "The existence of many marketing agents and marketing firms increases marketing costs and margins."

3. Two statements that have been made about state marketing agencies for farm products follow. One of these is: "State marketing agencies can reduce marketing costs by reducing the number of middle-men."
   A second statement is: "Boards can return better prices to producers since they avoid competition in selling that drives down the selling prices for the products that they handle."
   Do you agree with the two statements above? What assumptions are implied by each of these statements?

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